



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------|------------------|
| 09/283,587 | 04/01/1999 | TORBEN NAURBO DALGAARD | 742114-11 | 1236 |
| 22204 | 7590 | 12/13/2005 | EXAMINER | |
| NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128 | | | GRIER, LAURA A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2644 | |

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/283,587 | Applicant(s) DALGAARD ET AL. | |
| | Examiner Laura A. Grier | Art Unit 2644 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 14-22 and 25 is/are allowed.
- 6) ☐ Claim(s) 11, 13 and 23 is/are rejected.
- 7) ☒ Claim(s) 12 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Harley, U. S. Patent No. 5539831.

Regarding claim 23, Harley discloses an active noise control stethoscope. Harley's disclosure comprises receiving or detecting body sounds (heart and lung) – abstract, lines 1-3, col. 4, lines 33-38 and col. 5, lines 26-28, which reads on receiving an auscultation signal; a DSP (10), col. 5, lines 41-52, which reads on a providing a biased auscultation signal; and further the DSP utilizes algorithms and comprises a digital filter, which indicates calculating a signal representative of an estimated rhythm of a receive auscultation signal, therein, wherein it is inherent that the filtering has a frequency response for a frequency range of interest, which would the audible frequency range up to 20kHz; and further A-weighting may be used to define the frequency dependent sensitivity of the human ear – abstract, col. 7, lines 30-67, col. 9, lines 22-28, and col. 10, lines 1-7.

Claim Rejections - 35 USC § 103

Art Unit: 2644

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harley.

Regarding claim 11, Harley discloses an active noise control stethoscope. Harley's disclosure comprises receiving or detecting body sounds (heart and lung) – abstract, lines 1-3, col. 4, lines 33-38 and col. 5, lines 26-28, which reads on receiving an auscultation signal; a DSP (10), col. 5, lines 41-52, which reads on a providing a biased auscultation signal; and further the DSP utilizes algorithms and comprises a digital filter, which indicates calculating a signal representative of an estimated rhythm of a receive auscultation signal, therein, wherein it is inherent that the filtering has a frequency response for a frequency range of interest, which would the audible frequency range up to 20kHz; and further A-weighting may be used to define the frequency dependent sensitivity of the human ear – abstract, col. 7, lines 30-67, col. 9, lines 22-28, and col. 10, lines 1-7. However, Harley fails to disclose the DSP comprising an envelope detector. The examiner takes official notice that an envelope detector was well known in the art. It would have been obvious to one of the ordinary skill in the art at the time the invention was made modify the invention of Harley by providing an envelope detector for the purpose of detecting the envelope characteristics among the frequency band(s) of the auscultation signal.

Regarding claim 13, Harley discloses everything claimed as applied above (see claim 11). Harley inherently disclose the frequency range of interest being a frequency range of less than 2

Art Unit: 2644

kHz as evident by the teachings of the Nyquist frequency which is typically less than 20 kHz, and merely by the known fact that the audible frequency range is between 20 Hz to 20 kHz.

5. Claims 1-10, 14-22 and 25 are allowed.

6. Claims 12 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 6/3/05 have been fully considered but they are not persuasive.

The applicant essentially argues that prior art rejection of Harley fails to disclose the claimed invention in respect the amended claim language of receiving an auscultation signal from a single channel input. The art rejection of Harley has been maintained because the claim language has been considered and interpreted in respect the broadest interpretation of the claim language. The claim language fails to specifically disclose or exclusively limit an auscultation signal from being more than one single channel.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura A. Grier
Primary Examiner
Art Unit 2644

December 12, 2005